Turner, A., & Shaw, I. (2013). Exploratory evaluation of variation in statin take up among high risk patients in Nottingham City. *Public Health*, *127*(10), 3-5. https://doi.org/10.1016/j.puhe.2013.04.026

SHORT COMMUNICATION

Exploratory evaluation of variation in statin take up among high risk patients in Nottingham City

Turner, A., Shaw, I.

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This report is from a small qualitative study evaluating variation in statin take up following risk assessment as part of the UK's NHS Health Checks programme. Previous studies at the practice level have found lower than expected take up of statins from the Health Checks programme, and it has been suggested that this may be due to patients' and doctors' beliefs about treating risk rather than disease(1). From interviews with a small sample of patients and GPs we suggest that greater variation may be a consequence of shared-decision making. The trends we identified have implications for primary care practice, if corroborated in a large study. Our results therefore provide a basis for further research in this area.

The NHS Health Checks programme is a national policy for England delivered in primary care. The aim is to invite all 40-74 year olds, without a prior diagnosis of cardiovascular disease (CVD), diabetes, chronic kidney disease or hypertension, for a risk assessment and treatment, if necessary, once every five years (2,3). The Health Checks programme is designed, through this risk assessment and preventive treatment, to reduce the incidence of CVD as well as help to tackle health inequalities and the rise in obesity (2). For primary prevention the programme follows guidance from the National Institute of Health and Clinical Excellence (NICE). It recommends that patients found to be at high CVD risk (those estimated to have a 10-year risk of 20% or greater, as measured by the QRisk2 cardiovascular risk calculator http://www.qrisk.org/) should be offered interventions, including statin medication and lifestyle

changes, to reduce modifiable risk factors (4).

GP practices within Nottingham City CCG conduct targeted CVD screening, and are rolling out the Health Checks to all 40-74 year olds. From 2009-11, 10001 eligible patients were screened. Of these, 4260 patients were found to be high risk, but only 2541 are known to have been started on statin medication (5). The reason for this disparity was not understood, and there is known to be wide variation in statin uptake in high risk patients, both within and between practices (6).

The Health Checks programme has been studied previously, however (7–9). Notably, Dalton, Bottle et al studied uptake within Ealing PCT between 2008-09, and similarly found lower than expected uptake, which they speculated may be due patients and doctors' beliefs about the risks and benefits of treating patients without disease; and additionally, may be due to a measurement bias introduced by long delays between attending for Health Check and being prescribed a statin (1).

Our study was a small-scale qualitative study, exploring doctor and patient beliefs as a potential explanation of the variation observed by Nottingham City CCG. From 6 practices within Nottingham City short (10 minute) telephone interviews were conducted with a total of 28 patients (160 were invited), and longer (30 minute) face-to-face interviews were conducted with 4 GPs.

Statin uptake (the percentage of high risk patients identified by a practice, who subsequently took up a prescription of a statin) in the 6 practices ranged from 11% to 64% (median 30%). The

sample of patients interviewed was composed of generally older (93% 60 or over; 56% 70 or over) male (71%) patients, the majority of which were taking statin medication (57%) and unanimously described their ethnicity as white (100%). 4 GPs, from 3 of the participating practices agreed to be interviewed. Data from the interviews with patients and GPs was analysed thematically (10). Key results are as follows:

The primary barrier to uptake that GPs cited was patient concern about side-effects. In contrast the patients interviewed expressed relatively little concern about side-effects, and patients who accept statin medication were no more likely to state that their GP gave a good explanation of possible side-effects than patients who declined a statin. GPs however felt frustrated that they often had to combat misinformation about statins in their consultations: two GPs singled out the Daily Mail newspaper as a particular source and one GP noted “it's quite a pain to be going through that” (GP4).

Among the patients interviewed, many thought that lifestyle modification and statin medication were two alternative approaches (rather than part of one combined strategy) to managing their risk. All patients felt that they would prefer lifestyle modification to statin medication. Indeed, those not taking a statin often felt lifestyle modification was an important “challenge” or “vow” to themselves. Patients not taking statin medication also did not express strong preferences against statin medication; rather, declining the prescription was a decision that many felt had been reached in conjunction with the GP, and which may change in the future.

Nearly 50% of patients taking statin medication stated they “trust utterly” their GP, or they must “go along” and “not argue” with their GPs advice. The majority of these came from lower socio-

economic groups, though the numbers involved were not large enough to determine significance. This view rarely had a paternalistic tone however, rather patients taking statin medication felt they worked with their GP and trusted them to give the best advice.

Consonant with this, GP's believed that non-paternalistic and shared decision-making approaches were crucial to facilitating uptake and ensuring subsequent concordance with statin medication. Key aspects of this were: (a) Providing a good explanation of risk, and why high risk patients therefore needed a statin. (b) Pre-emptive explanation of possible side-effects and how they can be dealt with if they appear. (c) Negotiation of treatment options with the patient, in order to encourage them to trust the GP and take responsibility for managing their risk.

This latter aspect was highlighted by all the GPs as being particularly important. A period of trying lifestyle modification prior to starting statin medication, in order to encourage patients to work with the GP was a common strategy, as were breaks or reductions in statin medication following the experience of side-effects in order to keep patients involved in a conversation with their GP rather than giving up. These strategies were also noted for allowing GPs to integrate patient values into decision-making, even if they “may not seem reasonable”.

The results of these interviews suggest that variation in statin uptake among high risk patients may be a consequence of the negotiation strategies that GPs use with patients. In order to encourage uptake of, and concordance with, statin medication in the long run GPs initially delayed prescription of statins while the patient attempted to modify their other risk factors. This built trust and provided a non-paternalistic way for GPs to deal with patients sceptical about statin medication. Conversely, failures of concordance or uptake were thought by GPs to be due

to poor explanations of statin treatment and lack of shared decision-making. The results of the study highlight a possible tension between patient choice and high uptake. Variation may also be due to other linked factors, such as GPs' personal beliefs about the merits of statins, and there own success and skill at negotiating treatment with patients. As a result of this study future research can address these factors in detail.

The findings from this study warrant further corroboration in a larger more representative study. The small number of patients in this study, in conjunction with the low response rate from patients, make it prone to bias: the sample of patients was self selecting, skewed towards older, White males and not representative of the practices' populations. Response rates were difficult to engineer to be more representative. Future research could usefully employ other survey methods, for example, questionnaires which, while less rich in qualitative terms, may lower the barrier to participation and thereby encourage a larger response from patients.

This was an exploratory study and from the results we tentatively suggest that the choice agenda is likely to increase clinical variation, and where there is clinical variation this shouldn't necessarily be regarded as 'unwarranted'. It also provides a further reason to investigate the measurement bias suggested by Dalton, Bottle et al, since GP negotiation strategies introduce a further delay between identification as high risk and statin prescription. Since CCGs are measured against outcomes, there should be follow up on those patients who choose lifestyle modification. It is also clear that work needs to be done on developing an accessible patient information package that outlines the benefits of statin medication alongside management of possible side effects, and the complementary, rather than alternative, role for lifestyle modifications.

Declarations

Funding: NIHR flexibility and sustainability grant to Nottingham City Primary Care Trust.

Funders played no role in the design, analysis or conclusions of this evaluation.

Competing Interests: None declared

Ethical approval: The study was regarded by NHS R&D Governance as an `Evaluation' and as such not subject to the NHS research ethics procedure. However, the ethical standards laid down by the BSA were rigorously followed and the study was also subject to approval and scrutiny by the University of Nottingham's in house research ethics procedures.

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